

ABSTRACT

5 A fluorescent immunoassay employing the interior surface of a capillary tube is provided. Devices to permit immunoassays using one or more capillary tubes, an apparatus for use with the devices, and a process for screening for analyte in a sample using the devices and apparatus are also provided. Samples suspected of containing analyte are added to a disposable self-contained sample tray containing one or more sample wells, mixed with a reagent, drawn into one or more spaced-apart capillary tubes held within a disposable cartridge connected to an analytical apparatus, reacted with a binding member on the surface of the capillary tube, washed to stop the reaction, and dried by the apparatus. The capillary tube is then exposed to a signal generation device to create a fluorescence signal that is detected using a signal detector. The apparatus determines the presence of the analyte and optionally determines the amount of analyte present in the sample, and presents the results to the operator.